CLAIM LISTING

1. (Original) A molecule comprising a polymer comprising the structure:

$$A_x-B_y$$

wherein A is a carbosilane comprising a latent reactive group bonded to Si, B is a carbosiloxane, x is an integer greater than or equal to 1, and y is an integer greater than or equal to 1.

- 2. (Original) The molecule of claim 1, wherein the latent reactive group is a hydrogen, an alkoxy group, a phenoxy group, or a halogen atom.
- 3. (Original) The molecule of claim 2, wherein the latent reactive group is a methoxy group.
- 4. (Original) The molecule of claim 1, wherein the carbosilane has the structure: wherein R is a latent reactive group, R₁ is a hydrocarbon chain containing at least one carbon, and z is an integer greater than or equal to 1.
 - 5. (Original) The molecule of claim 1, wherein the carbosiloxane has the structure: wherein R is a functional group and y is an integer greater than or equal to 1.
- 6. (Original) The molecule of claim 1, wherein the molecule comprises the structure of compound 3.
- 7. (Withdrawn) The molecule of claim 1, wherein the molecule comprises at least two polymers each comprising the structure:

$$A_x-B_y$$

wherein the at least two polymers are internally crosslinked via at least one Si-O-Si linkage.

- 8. (Withdrawn) The molecule of claim 7, wherein the molecule comprises the structure of compound 4.
 - 9. (Original) The molecule of claim 1, wherein the polymer comprises the structure:

$$A_x$$
- B_y - C_z

wherein C is a chain-end crosslinking molecule and z is an integer greater than or equal to 1.

- 10. (Original) The molecule of claim 9, wherein the chain-end crosslinking molecule is selected from the group consisting of compounds 5 and 6.
- 11. (Original) The molecule of claim 10, wherein the polymer comprises the structure of compound 7.
- 12. (Original) The molecule of claim 10, wherein the polymer comprises the structure of compound 10.
- 13. (Withdrawn) The molecule of claim 9, wherein the molecule comprises at least two polymers comprising the structure:

$$A_x$$
- B_y - C_z

wherein the at least two polymers are internally crosslinked via at least one Si-O-Si linkage and chain-end crosslinked.

- 14. (Withdrawn) The molecule of claim 13, wherein the molecule comprises the structure of compound 8.
- 15. (Withdrawn) The molecule of claim 13, wherein the molecule comprises the structure of compound 11.

- 16. (Withdrawn) A method of making the molecule of claim 1, the method comprising the steps of:
- (a) preparing a reaction mixture comprising a carbosiloxane monomer, a carbosilane monomer, and an ADMET catalyst; and
- (b) placing the reaction mixture under conditions that result in the production of the molecule of claim 1.
- 17. (Withdrawn) The method of claim 16, wherein the reaction mixture comprises the carbosilane monomer and the carbosiloxane monomer in a molar ratio of between about 1:5 and 1:100.
- 18. (Withdrawn) The method of claim 17, wherein the molar ratio is less than about 1:7.
- 19. (Withdrawn) The method of claim 16, wherein the reaction mixture comprises the monomers and ADMET catalyst in a molar ratio of between about 1:1 and about 1:5000.
- 20. (Withdrawn) The method of claim 19, wherein the reaction mixture comprises the monomers and ADMET catalyst in a molar ratio of between about 1200:1 and about 100:1.
- 21. (Withdrawn) The method of claim 16, wherein the reaction mixture further comprises a chain-end crosslinking molecule.
- 22. (Withdrawn) The method of claim 21, wherein the reaction mixture comprises the carbosilane monomer, the carbosiloxane monomer, and the chain-end crosslinking molecule in a molar ratio of about 1-100:1-100:1-100.
- 23. (Withdrawn) The method of claim 21, wherein the carbosilane monomer and the chain-end crosslinking molecule comprise less than 20 mole percent of the reaction mixture.

24. (Withdrawn) The method of claim 16, wherein the catalyst is selected from:

$$F_{3}C$$

$$F_{3}C$$

$$H_{3}C$$

$$CH_{3}$$

- 25. (Withdrawn) The method of claim 16, wherein the step (b) comprises placing the reaction mixture under dry conditions.
- 26. (Withdrawn) The method of claim 16, wherein the step (b) comprises placing the reaction mixture in an argon atmosphere.
- 27. (Withdrawn) The method of claim 16, wherein the step (b) comprises subjecting the reaction mixture to a vacuum force.
- 28. (Withdrawn) The method of claim 16, wherein the step (b) comprises adding heat to the reaction mixture.
- 29. (Withdrawn) The method of claim 25, wherein the step (b) results in the production of a non-cross-linked polymer.
- 30. (Withdrawn) The method of claim 29, further comprising exposing the non-cross-linked polymer to water to form a cross-linked polymer.
 - 31. (Withdrawn) The method of claim 30, wherein the water is atmospheric moisture.